

Distribution and status
of *Cupido lorquini* (Herrich-Schäffer, 1847)
in Seville, Spain (Lepidoptera, Lycaenidae)

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Summary

During a recent survey of the Rhopalocera in Sierras Subbéticas (Seville, Spain), several specimens of *Cupido lorquini* (Herrich-Schäffer, 1847) were observed. This new record is important due to the limited range of this species in the Iberian Peninsula. The known distribution of this species in Andalusia is presented.

Résumé

Au cours d'une enquête récente sur les Rhopalocères des Sierras Subbéticas (Séville, Espagne), les auteurs ont observé plusieurs exemplaires de *Cupido lorquini* (Herrich-Schäffer, 1847). Cette nouvelle localisation est importante vu l'extension limitée de cette Lycénide dans la Péninsule Ibérique. Les auteurs présentent la distribution géographique connue de *Cupido lorquini* en Andalousie.

Cupido lorquini was first described as a distinct species by Herrich-Schäffer in 1847. He gave no reference to the type locality. The species can be difficult to distinguish from the two other allied Iberian species of this genus : *C. minimus* (Fuessly, 1775) and *C. osiris* (Meigen, 1829). This was an obstacle in obtaining an accurate picture of the species' distribution, especially with the earlier records. Although Higgins (1975) notes that specific characters are not very well defined in the genitalia, they do nevertheless offer the only reliable method of determination. The male genitalia were described in detail and compared with allied species by Riley (1927). The female genitalia were figured by Munguira (1989). The latter work is a full account of the biology and ecology of the species in Spain.

C. lorquini is univoltine across its range, the flying period in Andalusia extending from March to July depending on altitude (Munguira & Martin, 1989). At Subbéticas, at a mean altitude of 800 m, we observed

the first specimens during the second half of April and the last at the beginning of June, the peak period of adult occurrence being the last week of April and the first ten days of May.

It has been said that the species is extremely local, but very abundant where it occurs (Pascual, 1985). However, we have only ever observed scattered individuals, although most were seen in the same place. In Seville, we always found this species in the clearings of the seral Asparago- Rhamnion plant communities favoured by sheep and goat grazing (Astragalo-Poetum bulbosae), on Jurassic limestone.

The species occurs in Morocco (Bozano & Giacomazzo, 1988) and Algeria (Devarenne, 1989) in northern Africa, and the Iberian Peninsula (Munguira *et al.*, 1991). Riley (1927) and Manley & Allcard (1970) note that the butterfly was also reported from Digne (France), but they consider that the only authentic records for Europe seem to be those from Andalusia and Portugal.

In Andalusia the species appears to be widespread, but very local. Munguira *et al.* (1991) gave a total of 22 UTM squares (10×10 km) in which the species is present (Iberian Peninsula: 31 squares), and they classified it as vulnerable in the Iberian Peninsula. This map does not agree with the regional distribution first compiled by Moreno (1991) using data obtained from a critical review of the literature and from direct enquiries to local lepidopterists, undoubtedly because each author has a different criteria to evaluate records. Tarrier (1993) gave the areas occupied by colonies of the species, but did not specify the squares. We show the known distribution of *lorquinii* in Andalusia in Figure 1.

The range of this lycaenid in the Penibetic Mountains, may be divided into three groups of populations: the former and best known includes the conglomerate of highlands which surround the village of Alfacar, Sierra Nevada and part of Granada's Vega; the second is that from Sierra de Martos (Jaen), populations that were described by Pascual (1985) as ssp., *martenensis*. The third includes the Sierra of Grazalema (Cadiz), Sierras of Malaga and the newly reported colonies of Seville (see also Tarrier, 1993). There are some other records from coastal districts of Malaga (Sanchez-Rodriguez, 1982), Granada and Cadiz (Zerny, 1927), and from Sierra of Aracena (Viedma & Gomez-Bustillo, 1985). The new colonies in Seville are:

- 1) Aguila Mt. (700 m), Lora de Estepa, this is the largest colony.
- 2) Becerrero Mt. (750 m), near the city of Estepa. These localities are within UTM square 30SUG32.
- 3) Terril Mt. (840 m), near the village of Pruna (UTM 30SUF09).

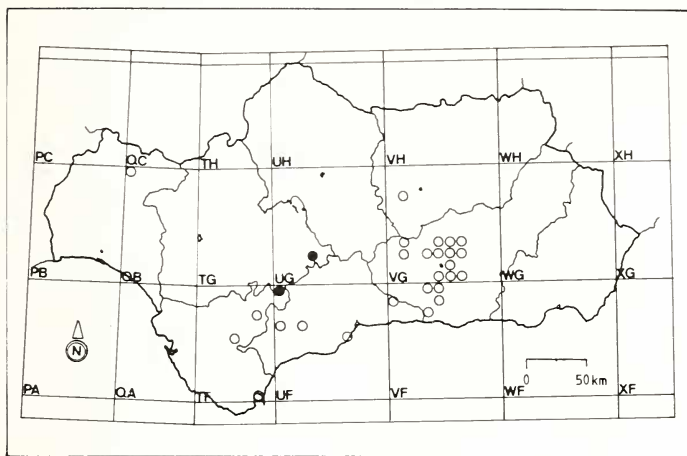


Fig. 1. Distribution of *C. lorquini* in Andalusia. Black circles : new localities. Open circles : data from Moreno (1991) and Munguira *et al.* (1991), including both literature and confirmed records.

These new records greatly extend the known Andalusian range of the species to the west. Moreover, a comparison between the biotopes in Subbeticas actually suggest the possibility that this species may be present in more Andalusian localities.

Cupido lorquini was classified as rare in Andalusia (Moreno, 1991) and as vulnerable in Spain by Viedma & Gomez-Bustillo (1985) and in Europe by Heath (1981). Forestry, development and changes in agricultural practices seem to be the principal threats to the species. The newly discovered colonies occur on the slopes of marginal areas that are now mainly set aside for hunting, and are relatively well conserved. However they are close to cultivated land (olive groves), so that changes in land use, such as the removal of the sheep and goats from these areas, could be the main threat to the species in Seville.

The discovery of new colonies of *C. lorquini* should not be considered very surprising taking into account the lack of faunistic studies in western Andalusia. It suggests that certain species traditionally considered to have restricted distributions may in fact be more widely distributed, albeit in scattered and isolated colonies.

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